secluded Exmoor combe which seemed alive with *Pieris brassicae* (L.). They were everywhere, floating over the heathery slopes, whilst *phlaeas* was common as in Cornwall. Sweeping produced some useful *Coleophorid* records, Col. Emmet having asked John to try for *C. juncicolella* Stt. and *C. pyrrhulipennella* Zell., both apparently unrecorded for v.c.5.

Our Exmoor visit however will probably best be remembered for insects other than lepidoptera. Hornets, a scarce insect back home, had been noted consistently at house lights ever since our visit here last June — twelve were in the trap on 9th October. The nest must have been close by for a busy flight path towards the garden shed was in operation, but difficulty of access made us give up the search.

I was informed that "hornets are very docile at this time of year" — but the many neatly severed moth wings seemed at variance with such a statement. Even so, ones friends must be trusted so several worker hornets were gingerly fingered out of the egg trays and released. Yet "best admired from a distance" remains a conviction hard to dispel.

After six days the *albipuncta* eventually obliged with eggs, but the comment in the literature "takes rather longer to feed up than do others of the migrant *Mythimnas* is proving only too true!

Effects of the mild 1988 - 1989 winter on beetles in Worcestershire

No British winter for 330 years has been as mild as that of 1988-89. Despite snow cover on 20th November 1988, the whole of the ensuing period was exceptionally mild; in the second half of December some southern English counties were the warmest places in Europe. At this time temperatures in south Worcestershire regularly reached 14°C, some 9°C above the normal mean.

This note describes the effect of that winter on terrestrial beetles (and one or two others of climatically non-buffered niches) largely in OS grid square SP/03, Worcestershire. Many terricolous beetles that overwinter as adults move to local refugia, presumably in response to climate. Rank, low-lying grassland is a favoured biotope for many.

In 1988, this dispersal took place right up to the snow of 20th November, involving in the third week of the month such species as *Anotylus complanatus* (Er.), *Oxytelus laqueatus* (Msh.), *Stenus fuscicornis* Er., *Philonthus longicornis* Ste., *Quedius schatzmayri* Grid., *Atheta excellens* (Kr.), *Aphodius sphacelatus* (Pz.), *A. obliteratus* Pz. and *Chaetocnema hortensis* Ste.

Bembidion properans (Ste.) was active in late November, and fresh adults were observed in late December; *Omalium oxyacanthae* Gr. was in flight in late November, *Atheta fungivora* (Th.) active in early December. In many cases a high level of activity was maintained through the whole winter period (*Atenus bimaculatus* Gyll., *S. brunnipes* Ste., and *Aphodius sphacelatus* (Pz.) this last through November, rarely in December, throughout January, or for a part of it, viz *Onthophilus striatus* (Forst.), *Nossidium pilosellum* (Msh.) late December; *Catops fuliginosus* Er. and *C. grandicollis* Er., early to mid-December, the latter *in cop.*; *C. nigricans* (Spence) late December and first half January; *O. laqueatus* mid-December; *Rugilus orbiculatus* (Pk.) end December; *Quedius fumatus* (Ste.) early December; *Aloconota gregaria* (Er.) mid-November to early December; *Atheta nigra* (Kr.) late December and all January; *Aphodius obliteratus* and *Leiosoma deflexum* Pz., late December.

Carabidae active during mid-December included *Notiophilus biguttatus* F., *Agonum marginatum* (L.) and *Trechus obtusus* Er.; during late December *Bembidion femoratum* Stm., *B. quadrimaculatum* (L.), *Acupalpus meridianus* (L.) and *Badister bipustulatus* (F.). A particularly interesting record at this time and a true measure of the climate was the finding of the widespread adventitious species *Cercyon unipunctatus* (L.). *Anotylus inustus* (Gr.) was active throughout January, and *Leistus spinibarbis* (F.), *Staphylinus melanarius* Heer, and *Atomaria lewisi* Reit. early in the month.

Abraeus globosus (Hoff.) remained active through December and January; later in January *Cercyon terminatus* (Msh.) and *Phyllotreta nigripes* (F.) were observed more frequently. An *Encephalus complicans* Ste. was obseved in mid-January.

It would be a mistake to draw too many conclusions about these manifestations of climate; they need not ultimately act in favour of the species mentioned, which may for instance need to face competition from new colonists. The advanced appearance of species of *Bembidion, Aphodius* and *Leiosoma* early in 1989 led to no evidence of an increase in their numbers in the area in question.— P.F. WHITEHEAD, Moor Leys, Little Comberton, Pershore, Worcs WR10 3EP.

(As an immediate footnote to this communication, I record the following Coleoptera as a part of a much larger assemblage active in a pile of straw stable-bedding at Broadway, Worcs on 4.i.1990: *Cercyon haemorrhoidalis* (F.) several hundred; *C. melanocephalus* (L.), *C. terminatus* (Msh.); *C. unipunctatus* (L.); *Cryptopleurum minutum* (F.); *Onthophilus striatus* (Forst.); *Peranus bimaculatus* (L.); *Ptenidium pusillum* (Gyll.); *Lithocharis ochracea* (Gr.); *Philonthus discoideus* (Gr.); *P. longicornis* Ste.; *Quedius cruentus* (Ol.) 90% ab. *virens* Rott.; *Q. mesomelinus* (Msh.); *Q. molochinus* (Gr.); *Q. nemoralis* Baud.; *Crataraea suturalis* (Man.); *Clambus pubescens* Redt.; *Ahasverus advena* (Walt.); *Ephistemus globulus* (Pk.); *Mycetaea hirta* (Msh.); *Anthicus floralis* (L.). Co-incident has been the very strongly marked decrease of *Cercyon* spp. in many of their normal rank-grassland winter quarters in the local area. Is this an expression of climatic warming?)